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A NEW FOSSIL CHILOPOD FROM THE  
LATE CENOZOIC

BY

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The present account of a fossil chilopod is based upon a single specimen found in an onyx marble pen base prepared by the Southwest Onyx and Marble Company. The specimen was sent to me for study through Prof. A. Petrunkevitch of Yale University at the request of Mr. Clinton G. Abbott, late director of the San Diego Natural History Museum.

The pen base as received was broken in such a way as to divide the elongate specimen into two parts. This of itself has in no way increased the difficulty of the study. It is, however, very unfortunate that the head as well as the caudal end of the body, the two regions affording ordinarily the most significant diagnostic characters, are so far disintegrated and the fragments lost that nothing can be found excepting portions of the two antennae. Nevertheless, the great interest and importance attaching to fossils from this new source seem to justify a description, even though incomplete, of the specimen and an indication of its probable systematic position.

The fossil centiped, as well as those of an arachnid already described and named by Prof. Petrunkevitch\*, was discovered by Mr. J. W. Fisher, president of the Onyx company mentioned above, through whose courtesy they have been made available for study. For a detailed account of the quarry the interested person may consult the account by Prof. E. D. McKee quoted in the paper by Prof. Petrunkevitch here cited. This quarry is located "in a canyon on the north side of Black Mesa, about ten miles southwest of Ashfork, Arizona. . . . The age of the deposit is definitely 'post-faulting', which means since the middle of Cenozoic time, but deposition might have been any time from then up to the present. Similar deposits of travertine are forming today in many parts of the region where there are permanent or semipermanent flows of water."

\* A. Petrunkevitch, "*Calcitro fisheri*, a new fossil arachnid," Amer. Jour. Sci., 1945, vol. 243, p. 320.

While the features of the mouthparts are unknown, the form of the antennae and the general structure of the body segments render its place in the Geophilidae as highly probable. The new form may thus be systematically treated as follows.

Order GEOPHILIDA

Family Geophilidae

Genus CALCIPHILUS new

Apparently lacking pleural suprascutella and otherwise agreeing with *Geophilus* in having the antennae filiform and the tergites bisulcate. Differing from that genus and related forms in having the legs proportionately longer. *Generotype: Calciphilus abboti* new species.

The disintegration and nearly complete loss of the head and posterior end of the body prevents a more adequate diagnosis.

*Calciphilus abboti* new species

Long and slender, its length much exceeding that of any living species of *Geophilus* sens. str. of the Southwest and also apparently somewhat longer than the conspicuous *Linotaenia laevipes* (Wood) common in California and belonging to the closely related family Linotaeniidae. The total length of the holotype is estimated to be 115 mm. or more, with the width 1.5 mm., though in some parts of length less than this from shrinking. In comparison with this the legs of a typical segment of middle region of body are 2.3 mm. long. Because of the coiling and the partial disintegration of the posterior portion of the body the number of pairs of legs cannot be determined accurately but must be 115 pairs or more.

The legs are proportionately long with joints of the relative proportions shown in the accompanying figure; terminal claw with two accessory claws or spines. Sternites with complete paired longitudinal sulci spaced as shown in the figure. It has been impossible in the present state of preservation of the specimen to detect any ventral pores although such may have been present. The tergites also seem to be bisulcate as in typical *Geophilus*.

Of the head only portions of the two antennae remain, eight articles of the right and three of the left being preserved in situ while two other segments are in the matrix at a distance. The form and proportions of the middle and distal articles of the antennae are shown in the figure. The length of the eight segments of the right antenna is 1.8 mm., which would normally mean a total length of a complete antenna of close to 3.1 mm.

*Type locality:* Arizona: Bonner Quarry, near Ashfork.

*Holotype:* San Diego Society of Natural History

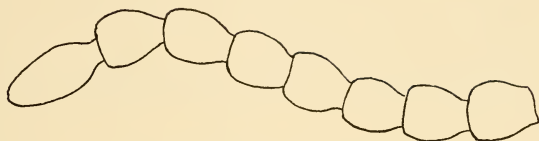


Fig. 1. Eight distal segments of an antenna.

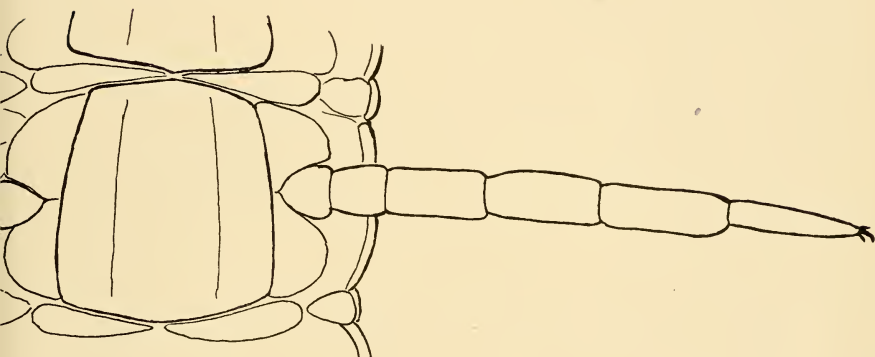


Fig. 2. Segment from middle region of body, ventral view.

